



## Modelling the impacts of climate change on surface runoff in small Mediterranean catchments: Empirical evidence from Greece

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### Abstract:

During the last decades, a major factor that analysts and policy makers take into account in the assessment of the environment is climate change. This global physical process is expected to cause problems in natural and human environment. Thus, modelling climate change impacts may lead to prevention policies to minimize the degradation of life quality because of lack of water resources in the future. This study implicates Geographical Information System (GIS) and hydrological modelling tools to various scenarios of climate change such as the increase of temperature the decrease of rainfall, or even both of them, to estimate the potential impact of climate change on surface runoff in a typical catchment in andros Island, Greece. Primary results indicate a proportional runoff decrease in the next 50 years because of global climate changes.

**Source:** <http://dx.doi.org/10.1111/j.1747-6593.2012.00369.x>

### Resource Description

#### Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Other Climate Scenario

**Other Climate Scenario:** author defined scenarios

#### Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

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#### Exposure :

weather or climate related pathway by which climate change affects health

Meteorological Factors, Precipitation, Solar Radiation, Temperature, Other Exposure

**Temperature:** Fluctuations

**Other Exposure:** surface water runoff; dew point

# Climate Change and Human Health Literature Portal

## **Geographic Feature:**

resource focuses on specific type of geography

Mountain, Ocean/Coastal

## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Europe

**European Region/Country:** European Country

**Other European Country :** Greece

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Model/Methodology:**

type of model used or methodology development is a focus of resource

Exposure Change Prediction

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Timescale:**

time period studied

Medium-Term (10-50 years)

## **Vulnerability/Impact Assessment:**

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

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